



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/511,091

10/14/2004

Ryutaro Hashi

L9289.04161

6147

24257 7590 06/25/2008

STEVENS DAVIS LLP

1615 L STREET NW

SUITE 850

WASHINGTON, DC 20036

EXAMINER

LAM, JOSEPH M

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

06/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,091	Applicant(s) HASHI ET AL.	
	Examiner JOSEPH LAM	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>14 October 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1 - 7 are rejected under U.S.C. 103(a) as being unpatentable over Bakshi (US 6457054 B1) in view of Czaja et al. (US 6804519 B1).

Regarding claims 1 and 7, Bakshi discloses a communication apparatus for use in a communication system that requires establishment of a link to transmit information between a transmitting side and a receiving side, comprising:

- a transmitting section that transmits information data that contains a predetermined amount of information (see column 4, line 40 to 48, and fig. 4: the connection establishment phase between a client device and a server device uses only a single packet combining the SYN.sub.c and the data request, as compared to the three packets that TCP typically would use (SYN.sub.c, ACK of SYN.sub.s, and the data request). This reduction is accomplished by including a predetermined connection identifier, such as the connection count (CC) variable described above with reference to TTCP, in the SYN.sub.c packet. Upon receipt of the SYN.sub.c packet). Bakshi fails discloses a requesting section that, before termination of a link for information data transmitted currently, requests the establishment of a link for transmitting next information data .

However, Czaja in the same field of endeavor discloses the following:

- a requesting section that, before termination of a link for information data transmitted currently, requests the establishment of a link for transmitting next information data (see column 8, line 36 to 42: the mobile station 124 makes a forward link with the second base station 123, before terminating the link with the first base station 122).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Czaja's soft handoff (see column 8, line 36 to 42) in Bakshi is connection establishment (see column 4, line 40 to 48, and fig. 4), in order to improve communication between two network devices.

Regarding claim 2, Bakshi in view of Czaja discloses the communication apparatus wherein said requesting section comprises:

- a link establishes data generating section that generates link establish data for requesting the establishment of a link (see Bakshi, column 4, line 40 to 43, and fig. 4: the connection establishment between a client device and server device uses only a single combining the SYN and the data request)
- a control section (Transmission control protocol as a control section) that controls said link establish data generating section to generate the link establish data for establishing a link for the transmission of information data to be sent next (see column 4, line 40 to 43, and fig. 4: TCP (transmission control protocol), and column 5, line 24 to 32: client device to the server device generates a particular request for sending the next request)

- and a transmitter section that transmits the generated link establish data immediately after said transmitting section transmits the information data (see column 4, line 1 to 5: a client device initiates a connection to a server device by transmitting a SYN.sub.c including the CC variable, a request for data packet).

Regarding claim 3, Bakshi in view of Czaja discloses wherein said requesting section comprises:

- a link establish data generating section that generates link establish data for requesting the establishment of a link (see Bakshi, column 4, line 40 to 43, and fig. 4: the connection establishment between a client device and server device uses only a single combining the SYN and the data request)
- a control section that controls said link establish data generating section to generate the link establish data for establishing a link for the transmission of information data to be sent next (see Bakshi, column 4, line 40 to 43, and fig. 4: TCP (transmission control protocol), and column 5, line 24 to 32: client device to the server device generates a particular request for sending the next request)
- a multiplexing section (working as a transmitting section) the generated link establish data and the information data to be transmitted currently by said transmitting section (see Bakshi, column 2, line 59 to 64: the client device transmits an acknowledgment signal (ACK), a data packet including, for example, a request for an HTML document, and a signal indicating the end of the transmission (FIN.sub.c). The server device then transmits an ACK to acknowledge receipt of both the request and the FIN.sub.c. Since,

client device transmitted signal to server device, it generates the link establishment and the information data)

- and a transmitter section that transmits the multiplexed information data and link establish data (see Bakshi, column 2, line 59 to 64: the client device transmits an acknowledgment signal (ACK), a data packet including, for example, a request for an HTML document, and a signal indicating the end of the transmission (FIN.sub.c). The server device then transmits an ACK to acknowledge receipt of both the request and the FIN.sub.c. Since, client device transmitted signal to server device, it generates the link establishment and the information data).

Regarding claim 4, Bakshi in view of Czaja discloses the communication apparatus wherein said multiplexing section (working as transmitting section) multiplexes the link establish data and the information data by using at least one of frequency division multiplexing, time division multiplexing, and code division multiplexing (see Czaja, column 8, line 25 to 30, and fig. 12: A mobile station 124 (transmitting section) communicates (established the link) with a first base station 122. As the mobile station moves, it must be handed off to a closer base station 123. As new 3G systems are introduced, a CDMA system 120 will have a mixture of both 2G and 3G systems).

Regarding claim 5, Bakshi in view of Czaja discloses wherein said requesting section requests the establishment of a link by full duplex communication which simultaneously performs transmission and reception (see Bakshi, see column 4, line 40 to 61 and fig. 4:

full duplex communication of the connection establishment between a client device and server device).

Regarding claim 6, Bakshi in view of Czaja discloses wherein said requesting section requests the establishment of a link by bi-directional simultaneous transmission using divisional multiple access (see Czaja, column 8, line 25 to 36, fig. 12: A mobile station 124 (transmitting section) communicates (established the link) with a first base station 122. As the mobile station moves, it must be handed off to a closer base station 123. As new 3G systems are introduced, a CDMA system 120 will have a mixture of both 2G and 3G systems. Mobile station 24 is simultaneous transmitting the signal strength to Base station 122 and Base station 123 before terminating the link with the first base station 122. This "soft handoff" improves the QOS for the mobile station).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form 892).

7. Examiner's Note: Examiner has cited particular paragraphs, columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing

responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and, also to verify and ascertain the metes and bounds of the Claimed invention.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Lam whose telephone number is 571-270-1959. The examiner can normally be reached on M-Th 7:30 AM - 5:00 PM, F 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/511,091
Art Unit: 2616

Page 9

June 20, 2008
Examiner: Joseph Lam
AU: 2616

/Huy D. Vu/

Supervisory Patent Examiner, Art Unit 2616